

JAN 21 2005 3:03PM

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NO. 0066 P. 4/19

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Patent

32692

Customer Number

Case No.: 55393US011

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: LEE, JENNIFER L.

Application No.: 10/008235 Group Art Unit: 1711

Filed: November 7, 2001 Examiner: Susan W. Berman

Title: WEATHER RESISTANT, INK JETTABLE, RADIATION CURABLE, FLUID COMPOSITIONS PARTICULARLY SUITABLE FOR OUTDOOR APPLICATIONS

AFFIDAVIT UNDER 37 CFR § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR § 1.8(a)]

I hereby certify that this correspondence is being:

- deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.
- transmitted by facsimile on the date shown below to the United States Patent and Trademark Office at (703) 872-9306.

Jan. 21, 2005

Shannon M. Bruce
Signed by: Shannon M. Bruce

Date

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

Richard L. Severance, being first duly sworn, does hereby depose and say as follows:

1. That I am the same Richard L. Severance who is identified as an inventor in US Application No. 10/008,235.
2. That I hold a Bachelor of Science Degree in Chemistry from Augsburg College in Minneapolis, Minnesota.
3. That I am currently employed at Minnesota Mining and Manufacturing Company in St. Paul, Minnesota in a capacity for research and development.
4. That I have read the references cited in the above-captioned application in the outstanding Office Action.
5. In order to demonstrate that the ink formulation of Example 7 as described in WO 98/27171 is not jettable using an inkjet printhead, I performed the following experiment:

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An ink was prepared according to the following formulation:

Ingredient	Weight % of Total Ink
Toagosei AA-10 acrylic macromer	30
hexanediol diacrylate	35
tetrahydrofurfuryl acrylate	12.5
isobornyl acrylate	12
Acryloid B-67	6
IRGACURE 1700 photoinitiator	3
Dow Corning 163 silicone flow agent	1.5

The ink was mixed by placing it on a roller under a heat lamp for several hours following by continued mixing on the roller overnight. The viscosity of the ink was measured on a Bohlin CVO 120 rheometer using a Bohlin C25 DIN 53019 cup and bob geometry, with a shear rate of 100 s^{-1} , and a temperature sweep from 25 to 60°C at a rate of $1.75^\circ\text{C}/\text{min}$.

The viscosity of the ink was around 3000 centipoise at room temperature and 500 centipoise at 55°C .

6. I conclude that the ink of Example 7 of WO 98/27171 is not jettable using an inkjet printhead as described in the present invention, and therefore does not fall within the scope of the claims of this application as amended.

Further affiant saith not.



Richard L. Severance
Richard L. Severance

Subscribed and sworn to before me
this 19th day of January 2005.



Shannon M. Bruce
Notary Public

